How Brass Tube are Manufacutured

Metrock Steel Industries

Trusted Supplier

Metrock is a trusted name in the metal industry, known for supplying high-quality stainless steel, carbon steel, and alloy steel products. With a strong focus on precision, durability, and customer satisfaction, Metrock serves diverse industries including construction, oil & gas, and manufacturing.

About Brass Tube

Brass tubes are hollow metal tubes made from a copper zinc alloy, known for their strength, corrosion resistance, and easy machinability. They are widely used in plumbing, HVAC, automotive, and electrical applications due to their durability and reliable performance.

Raw Materials Used for Brass Tubes

- **Copper (Cu):** Primary base metal providing strength, conductivity, and corrosion resistance
- **Zinc (Zn):** Alloying element that enhances hardness, durability, and machinability
- **Recycled Brass Scrap:** Used for cost efficiency and sustainable manufacturing
- **Alloying Additives:** Small amounts of elements like Lead (Pb) or Tin (Sn) to improve machinability and performance
- **Flux Materials:** Used during melting to remove impurities and improve metal quality

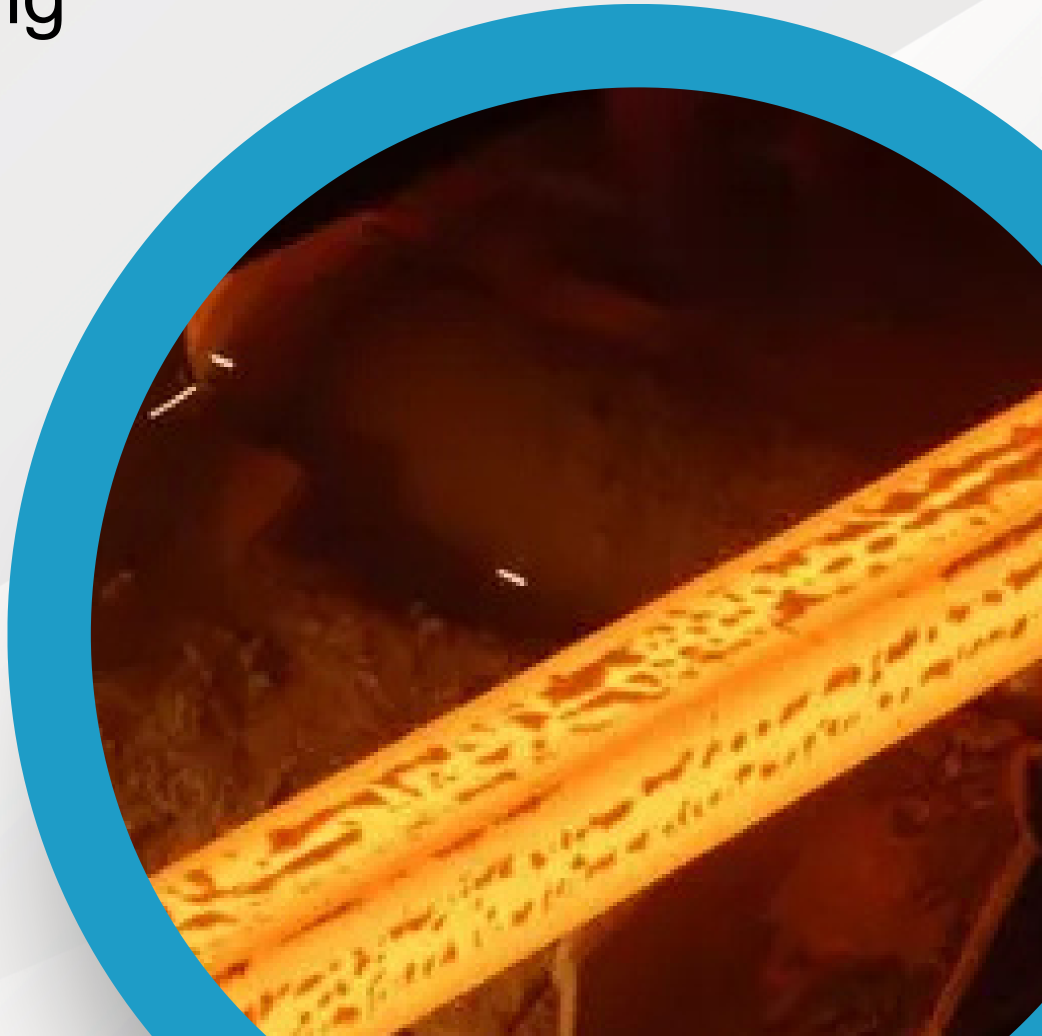
METROCK STEEL INDUSTRIES

Melting Process

- Raw materials (copper, zinc, and scrap brass) are charged into a high-temperature furnace
- Heated to approximately 900–950°C to achieve complete melting
- Flux materials are added to remove impurities and ensure clean molten metal
- Continuous stirring ensures uniform composition and consistency
- Temperature and chemical composition are closely monitored and controlled

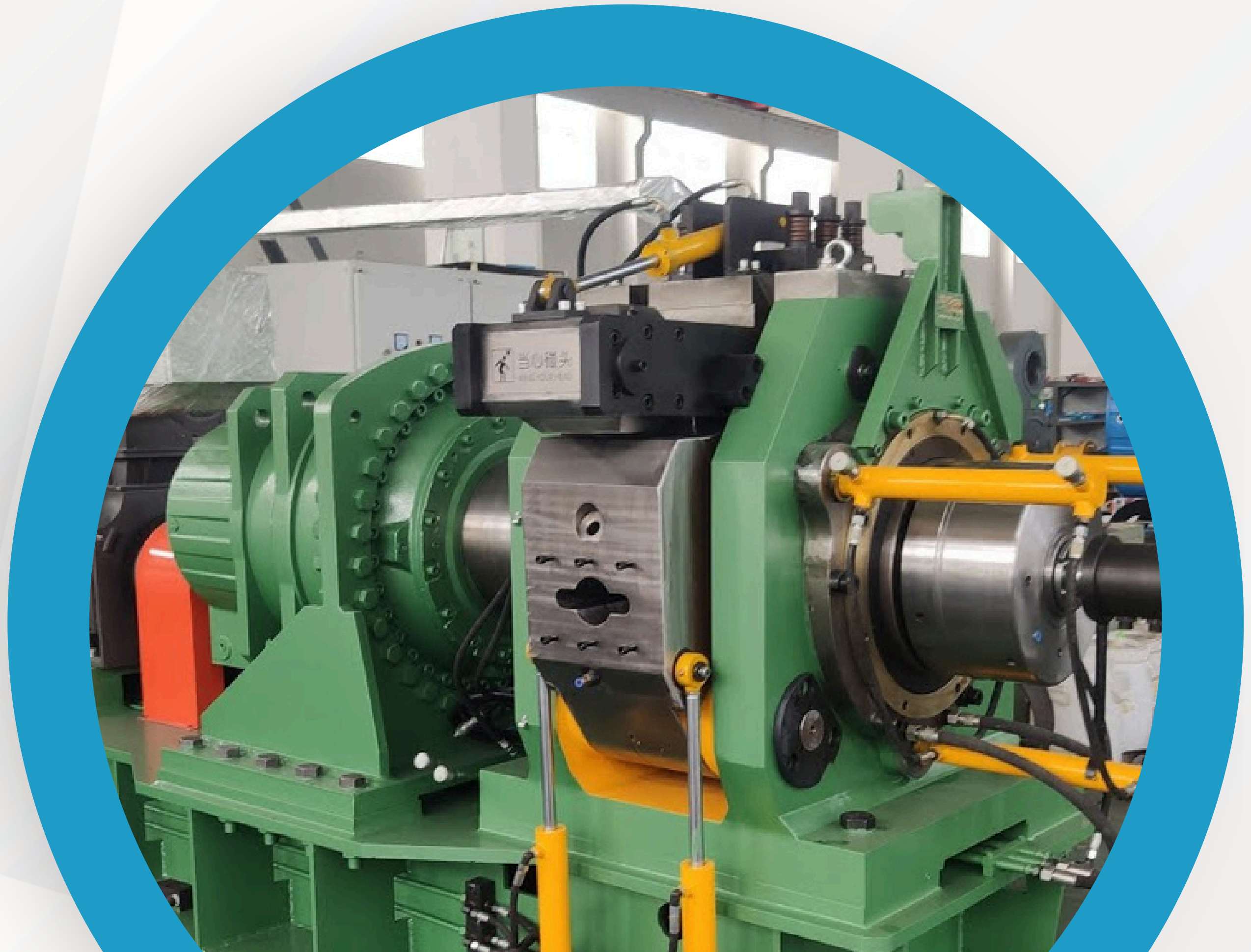
Casting of Brass Tube

- Molten brass poured into molds
- Formation of billets or hollow shapes
- Controlled cooling for uniform structure
- Minimizes internal defects
- Prepares material for shaping



Brass Tube Extrusion

- Heated billet placed in extrusion press
- Forced through die to form tube
- Defines outer diameter and thickness
- Improves grain structure
- Produces continuous tube length



Piercing of Brass Tube

- Solid billet pierced to create hollow section
- Mandrel used for inner diameter
- Ensures uniform wall thickness
- Prepares tube for further processing
- Improves internal surface quality

Cold Drawing of Brass Tube

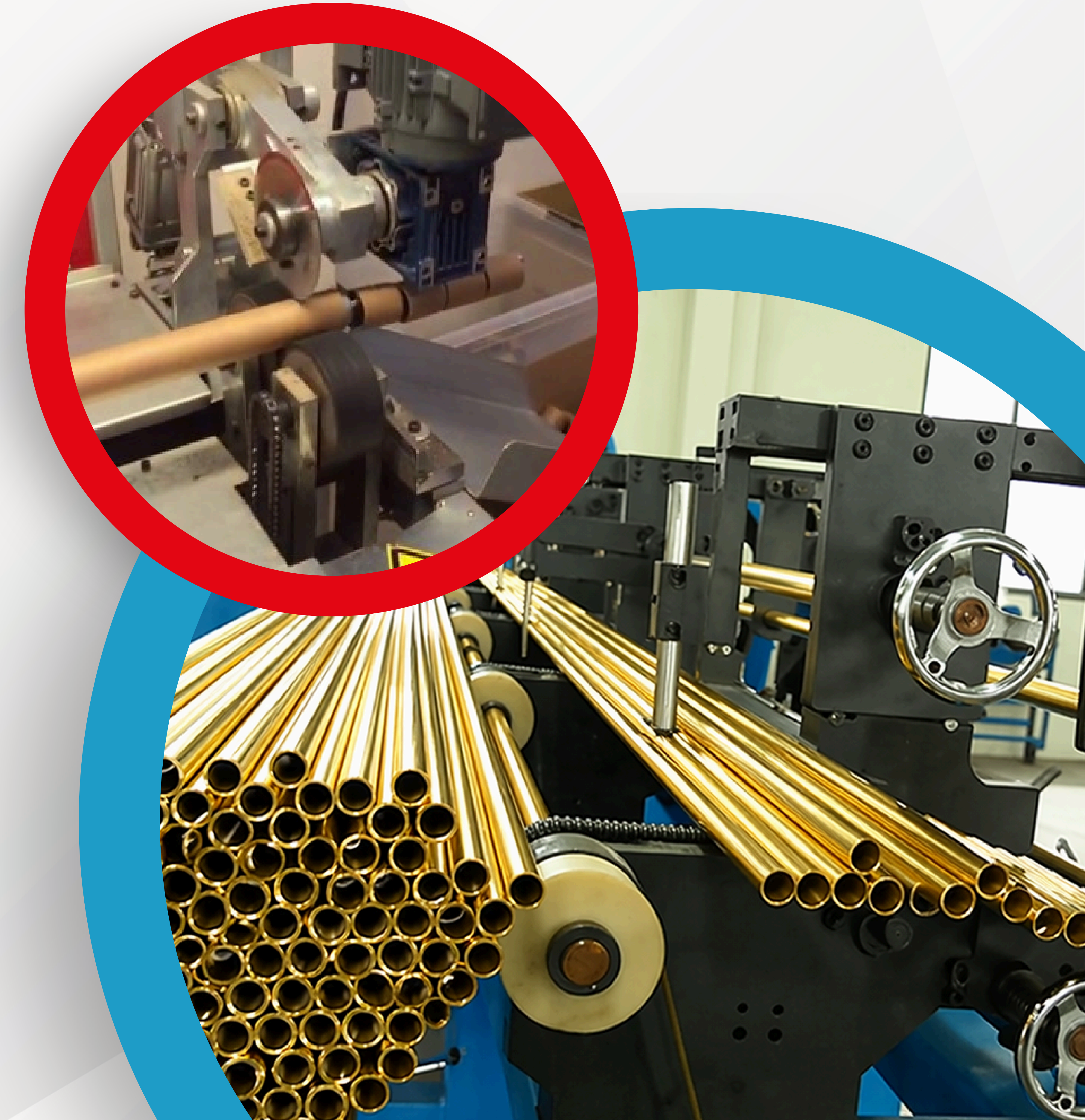
- Tube drawn through precision dies
- Reduces diameter and wall thickness
- Enhances dimensional accuracy
- Improves surface finish
- Increases mechanical strength

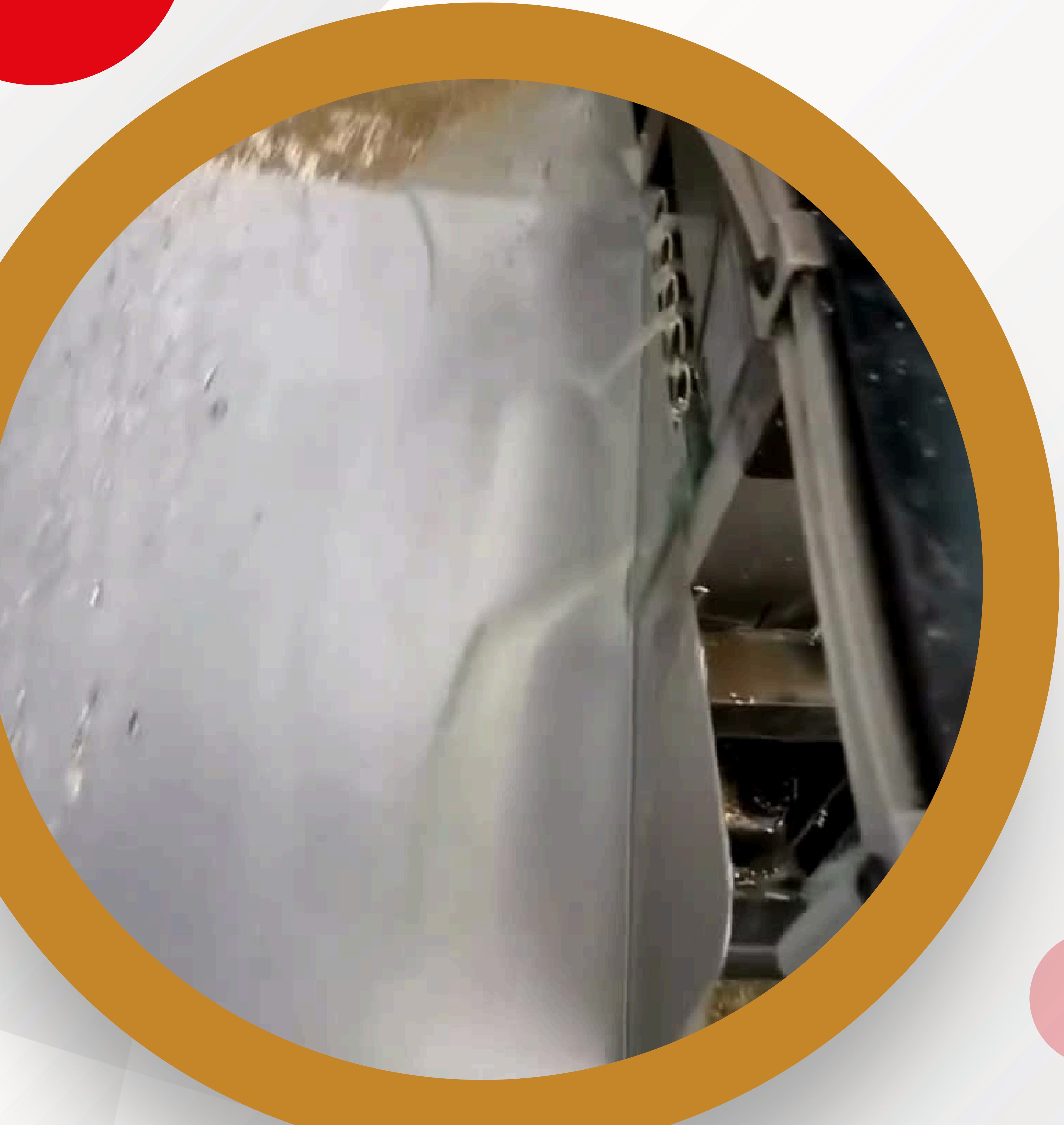
Straightening Process

The straightening process involves passing tubes through specialized machines to correct bending and deformation. This ensures uniform alignment, improves dimensional consistency, and prepares the tubes for accurate final cutting and further processing.

Cutting Process

- Tubes cut into required lengths
- Precision cutting tools used
- Maintains clean and smooth edges
- Reduces material wastage
- Ensures accurate sizing





Precision Process of Brass Tubes

- Casting into billets or hollow forms
- Extrusion to achieve basic tube shape and size
- Cold drawing for accurate diameter, thickness, and smooth finish
- Multiple drawing passes for tight tolerances
- Annealing (heat treatment) to relieve stress and improve ductility
- Straightening and cutting into required lengths
- Surface finishing: polishing, cleaning, and coating (if required)
- Final quality inspection for dimensions, strength, and surface defects

Surface Finishing

- Polishing for smooth surface
- Cleaning to remove contaminants
- Pickling for oxide removal
- Coating for corrosion protection
- Enhances product appearance

CLEANING / PICKLING
BRASS TUBE

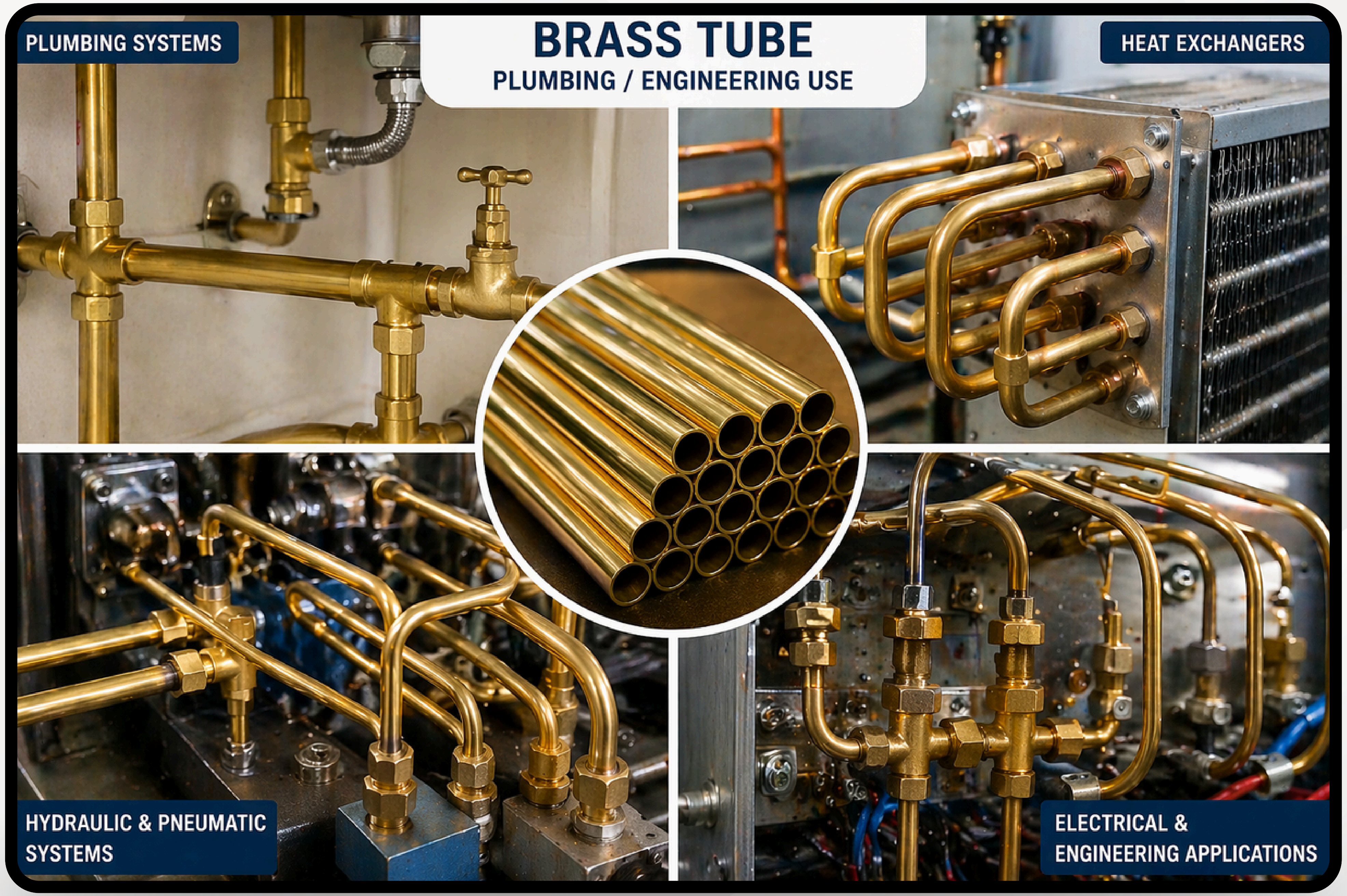
Quality Inspection

- Dimensional accuracy checked
- Wall thickness measured
- Surface defects inspected
- Mechanical properties tested
- Compliance with standards ensured

4. STRAIGHTNESS
5. VISUAL INSPECTION
15.02 mm

Final Product & Applications

- Ready for industrial use
- Used in plumbing systems
- Applied in heat exchangers
- Suitable for electrical components
- Widely used in engineering sectors


PLUMBING SYSTEMS
BRASS TUBE
PLUMBING / ENGINEERING USE
HEAT EXCHANGERS
HYDRAULIC & PNEUMATIC SYSTEMS
ELECTRICAL & ENGINEERING APPLICATIONS

Why to Choose Us

For Brass Tuble

Metrock is a reliable supplier of high-quality brass tubes, offering products that combine durability, precision, and excellent corrosion resistance. With strict quality control, consistent material standards, and timely delivery, Metrock ensures dependable performance for a wide range of industrial applications, making it a trusted partner for brass tube requirements.

THANKS FOR WATCHING

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